

Aug. 28, 1956

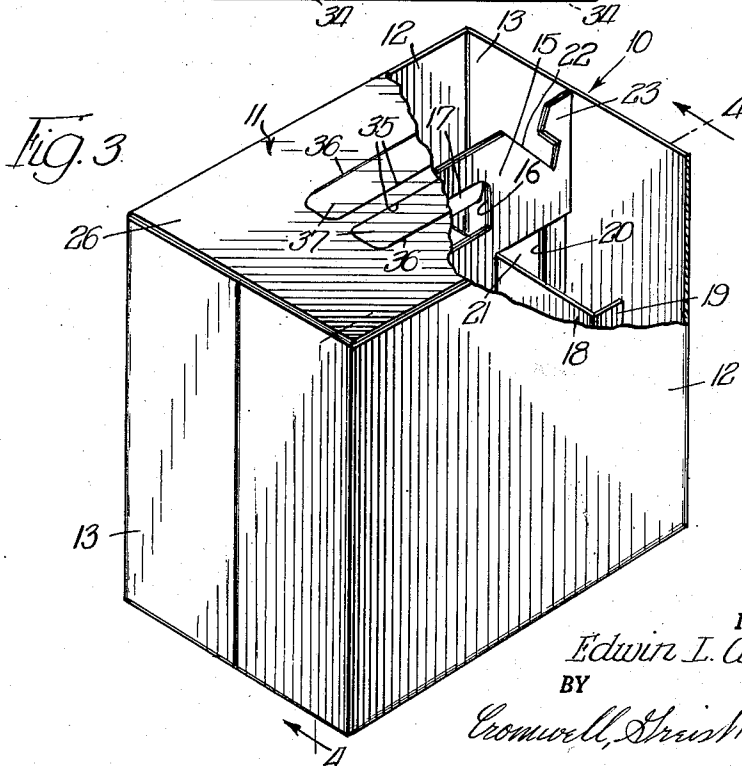
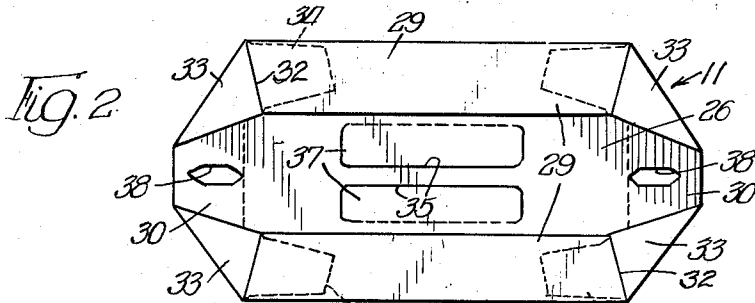
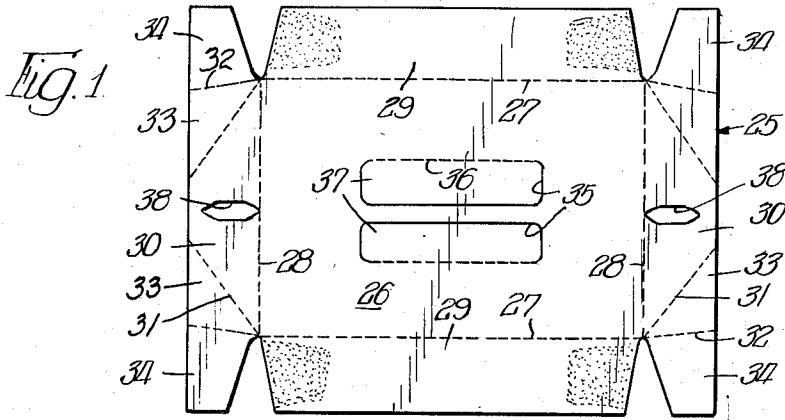
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2,760,677

COVERED BOTTLE CARRIER UNIT

Filed Nov. 1, 1952

2 Sheets-Sheet 1



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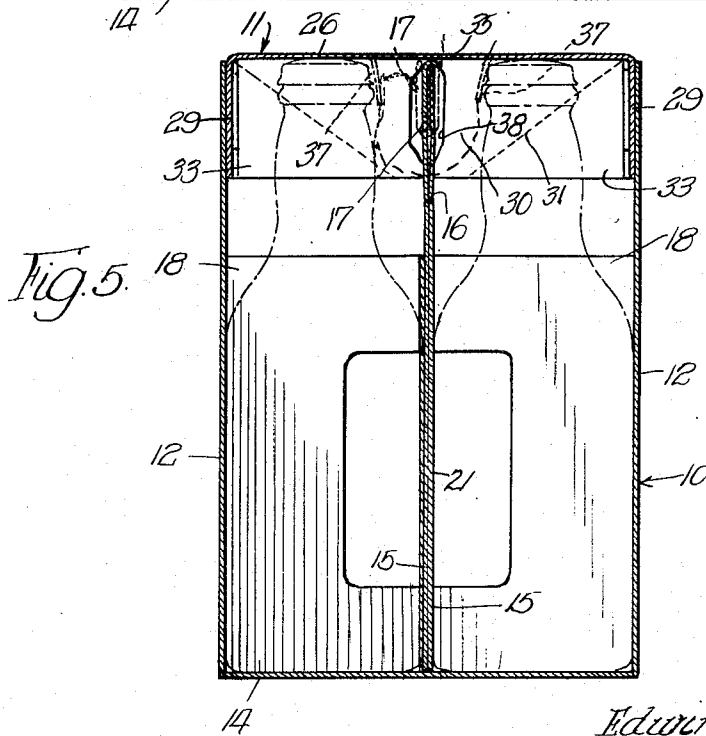
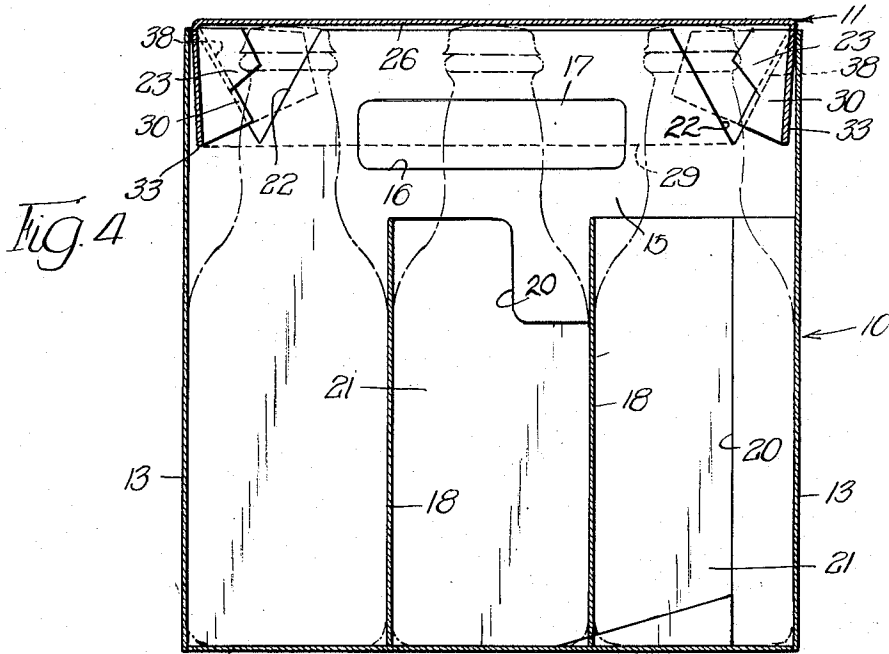
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COVERED BOTTLE CARRIER UNIT

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2 Sheets-Sheet 2



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2,760,677

**COVERED BOTTLE CARRIER UNIT**

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Application November 1, 1952, Serial No. 318,226

10 Claims. (Cl. 220—115)

The present invention relates to improvements in a paperboard bottle carrier unit specially intended for the packaging and transportation of bottled malt beverages, although not at all limited in use to this particular type of bottled drink. The improved carrier unit can be loaded automatically in exactly the same way as other conventional open topped, cellular bottle carriers, yet in use it completely shields the packaged bottles and protects their contents from deterioration by exposure to sunlight.

An objection to the use of well known types of open topped paperboard carriers in the packaging of bottled beer and like malt beverages, arise from the fact that exposure of the bottles to sunlight over an extended period has the effect of causing deterioration of their contents and spoiling the taste of the beverage. For this reason colored bottles are widely used, without entirely satisfactory result. Use of a covered carrier, of any one of many hinged cover types, is obviously indicated as a corrective of this situation, however the presence of a cover unsuits the carrier for loading by automatic equipment, as is the universal practise.

It is therefore an object of the present invention to provide an improved carrier unit, particularly intended for but not necessarily limited to the packaging of bottled malt beverages, which is entirely enclosed on all sides, the carrier featuring an improved removable cover readily and quickly applied to and removed from a cellular container member of the carrier, yet held positively in shielding relation to that member when in place.

Another object of the invention is to provide a paperboard bottle carrier unit characterized by a cellular container member having a central upstanding partition and side and end walls of height at least equal to that of bottles packaged therein, together with an improved paperboard cover member releasably telescoped in the top of the carrier walls and latched to the partition, the carrier member effectively shielding the bottles from external light.

Another object is to provide a unit of the sort described, in which the partition has a hand hole of more or less conventional type formed therein adjacent its top margin, and the cover member is also provided with improved hand receiving means affording access to the hand hole for the grasping and lifting of the carrier, still offering the light protection which the unit is primarily designed to provide, however.

It is a still further object to provide an improved removable cover construction for an open topped, cellular type of flexible paperboard bottle carrier which is ideally suited for economical manufacture on an existing and widely used container manufacturing equipment, which can be compactly stacked together with a corresponding number of cellular carrier members, for shipment in a flat, knocked-down condition, which is readily and quickly manipulable to position for engagement with and locking on the carrier member, and which, in said last named position, holds itself effectively in place on

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the carrier by the inherent spring of its foldably hinged parts.

The foregoing statements are indicative in a general way of the nature of the invention. Other and more specific objects will be apparent to those skilled in the art upon a full understanding of the construction and use of the improved unit.

A single embodiment of the invention is presented herein for purpose of illustration. It will be appreciated that the invention may be incorporated in other modified forms coming equally within the scope of the appended claims.

In the drawings:

Fig. 1 is a top plan view of an improved blank from which the cover member of the present unit is manufactured, illustrating the manner in which the blank is died out, creased and preliminarily glued prior to the folding operations which complete the same;

Fig. 2 is a top plan view of the completed carrier cover in a flat, knocked-down condition, the cover being inverted relative to the position of the blank shown in Fig. 1;

Fig. 3 is a perspective view of a covered bottle carrier unit in accordance with the invention, being partially broken away to remove a portion of the cover and better illustrate certain structural details of the container or carrier member of the combination;

Fig. 4 is a view in vertical longitudinal section along line 4—4 of Fig. 3, further illustrating structural details and relationships of parts; and

Fig. 5 is a view in vertical transverse section at the central vertical plane of the covered carrier.

Referring first to Figs. 3, 4 and 5 of the drawings, the improved packaging and carrier unit consists of a cellular bottle carrier 10 which is, in general, of a known type, and a flexible paperboard cover for the carrier, generally designated 11.

Carrier 10 may be constructed in the manner shown and described in my copending application Serial No. 235,978, filed July 10, 1951, and entitled "Article Carrier." As illustrated in Figs. 3, 4 and 5, it comprises pairs of opposed parallel side walls 12 and end walls 13, the side walls being connected at the base of the carrier to a bottom 14 integrally hinged to the lower margins thereof.

An upstanding longitudinal partition and suspending panel 15 of multiple ply construction extends longitudinally of and equidistant between side walls 12, in parallel relation thereto, and is integrally hinged at opposite ends thereof to the ends walls 13 by provisions which, per se, form no part of the present invention. A suitable elongated horizontal hand hole 16 is formed in panel 15 by a U-shaped slit adjacent the top thereof, this hand hole being normally covered by a bendable flap 17 integrally hinged along its top.

A plurality of cross partition panels 18 are integrally hinged to the longitudinal partition and suspending panel 15, extending normal to the latter and to side walls 12 in the erected condition of the carrier. The cross partitions are hingedly secured to the side walls by means of creased glue laps 19. Openings 20 in panel 15 which are exposed by the outturning of cross partition panels 18 are covered by an upturned flap 21 which is integrally hinged to the longitudinal panel 15 at the bottom thereof, all as is described in detail in my copending application referred to above. This type of carrier construction is a very efficient and economical one, however it is to be understood, principles of the invention to be described are equally applicable to any of various types of vertical walled paperboard carriers featuring an upstanding longitudinal partition panel like panel 15, preferably provided with a hand hole such as carrier 10 exhibits at 16.

In accordance with the present improvement, the multi-

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ply partition and suspending panel 15 is provided, adjacent each end thereof, with a shaped downwardly extending notch 22 which defines an inwardly projecting cover retaining lug or spur 23; this spur is spaced inwardly somewhat, say one-half inch to one inch, from the end of the partition which is connected with an end wall 13. It is of substantial size and its function is to hold in place the improved light shielding cover 11 of the invention. Cover 11 is illustrated in its flat, knocked-down condition in Fig. 2.

The cover is formed from a generally rectangular flexible paperboard blank 25 illustrated in Fig. 1 of the drawings. This blank has a generally rectangular central panel 26 defined by pairs of opposed side and end marginal creases 27, 28 respectively. These creases hinge to panel 26 the side wall flaps 29 and the end wall flaps 30, the respective flaps being separated from one another by angular notches directed inwardly of the blank from its outer side margins. The apices of the notches fall at the junctions of the respective side and end margin creases 27, 28:

End wall flaps 30 are provided with further angularly outwardly convergent creases 31 and with tab defining creases 32. These define on each of the end wall flaps a pair of triangular gussets or webs 33 and terminal side tabs 34, the various sections being integrally hinged to one another by creases 31, 32.

Central panel 26 of cover 25 is provided with opposed U-shaped slits 35 and horizontal creases 36 connecting the ends thereof to outline bendable hand hole tabs 37 hinged by creases 36. Furthermore, locking slots 38 of elongated hexagonal outline are provided at the medial center line of blank 26, these slots extending outwardly from the respective end creases 28.

In completing cover member 11 from blank 25 of Fig. 1, adhesive is applied adjacent opposite extremities of end flaps 29, as indicated by stippling in Fig. 1, whereupon the triangular webs 33 and their terminal tabs 34 are first swung 180° upwardly, inwardly and downwardly about the creases 31. Side wall panels 29 are then similarly rotated about creases 27, causing tabs 34 to be adhered to the walls and leaving the cover in its flat, knocked-down condition of Fig. 2. Creases 31 and 32 constitute hinges about which the side and end walls 29, 30 swing as the end walls are manipulated upwardly and inwardly toward an overall rectangular outline of the cover, in erecting the latter. The cover 11 is, however, not truly square at its ends (Fig. 4) due to the slight inclination of creases 32 with reference to the side margin creases 27 from which they extend, as shown in Fig. 1. Accordingly, the walls of the cover converge slightly from their marginal creases 27, 28 to their free edges when the cover is set up.

With carrier 10 in the erected condition shown in Figs. 3, 4 and 5, the cover member 11, with its walls manually erected as described above, is slipped downwardly into the interior of the carrier. As it shifts downwardly, the midpoints of its opposed end wall members 30 yield inwardly under the camming action of the inclined upper edges of latching spurs 23. However, upon passing the innermost apex of the spur, the walls spring outwardly under the inherent springing tension of their integral creased hinges. Locking slots 38 snap over the spurs and now cause the cover, in effect, to be cammed downwardly into the final closing relation to the bottle filled carrier which is illustrated in Figs. 4 and 5 of the drawings. The cover is effectively held in place, yet the expanding action of the walls 30 is not sufficiently great to prevent cover 11 from being manually lifted out of engagement with the carrier when it is desired to remove the bottles from the cells of the carrier interior. Upward lifting force cams the cover end walls inwardly as the edge of slot 38 slides along the lower inclined edge of spur 23.

In transporting the loaded and covered carrier, it is only necessary to deflect hand hole flaps 37 of cover panel 26 downwardly to enable the user's fingers to be hooked into the hand hole 16 of the carrier partition and suspend-

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ing panel 15, as indicated in dotted line in Fig. 5. The bottles are always thoroughly shielded from sunlight, and the cover in addition affords extra space for the application of printed matter or decoration.

I claim:

1. An article carrier unit comprising an open topped paperboard carrier having opposed pairs of side and end walls, and an upright longitudinal partition panel extending between said end walls and paralleling said side walls, said walls and longitudinal partition panel being substantially coextensive in height, and an inverted rectangular, box-like cover member for said carrier having a top panel and depending side and end walls telescoped within the open top of the carrier, said carrier partition panel being provided with downwardly extending slots adjacent opposite ends thereof extending downwardly from the upper extremity of the panel and defining mutually intumed, hook-like cover locking lugs, said lugs having inwardly and downwardly convergent upper edges, said cover member covering said lugs and being provided with locking apertures in said cover member end walls which are engaged over said lugs to removably fasten said cover member on said carrier.

2. An article carrier unit comprising an open topped paperboard carrier having opposed pairs of side and end walls, and an upright longitudinal partition panel extending between said end walls and paralleling said side walls, said walls and longitudinal partition panel being substantially coextensive in height, and an inverted rectangular, box-like cover member for said carrier having a top panel and depending side and end walls telescoped within the open top of the carrier, said carrier partition panel being provided with downwardly extending slots adjacent opposite ends thereof extending downwardly from the upper extremity of the panel and defining mutually intumed, hook-like cover locking lugs, said lugs having inwardly and downwardly convergent upper edges and inwardly and upwardly convergent lower edges, said cover member covering said lugs and being provided with locking apertures in said cover member end walls which are engaged over said lugs to removably fasten said cover member on said carrier.

3. An article carrier unit comprising an open top paperboard carrier having opposed pairs of side and end walls and a partition panel paralleling said side walls, said walls and panel being substantially coextensive in height, and an inverted rectangular box-like cover member having a top panel and depending side and end walls hingedly connected thereto telescopically received in the open top of said carrier, said partition panel being provided with slots adjacent opposite ends thereof extending downwardly from the upper extremity of the panel and defining mutually intumed hook-like cover locking lugs, said cover member being provided with locking apertures in the end walls thereof removably engaged with said lugs.

4. An article carrier unit in accordance with claim 3 in which said panel has a hand hole formed therein adjacent the upper extremity thereof and said cover member top panel is provided with a hand hole adapted for general alignment with said partition hand hole.

5. An article carrier unit comprising an open top paperboard carrier having opposed pairs of side and end walls, an upright longitudinal partition panel extending between said end walls and paralleling said side walls, and an inverted rectangular box-like cover member for said carrier having a top panel and connected side and end walls depending therefrom which are telescoped within the open top of the carrier, said carrier partition panel being provided with slots adjacent opposite ends thereof extending downwardly from the upper extremity of the panel and defining mutually intumed hook-like cover locking lugs, said cover member end walls being provided with locking apertures, and means cooperating with the end walls of said cover member to urge the same outwardly toward a coplanar relation with said top panel, said means including tabs on the side

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walls of said cover member attached to adjacent end walls to position the side and end walls of said cover member in convergent relation with respect to one another, said means urging the end walls of said cover member into locking engagement with said lugs.

6. An article carrier unit comprising an open top paperboard carrier having opposed pairs of side and end walls, an upright longitudinal partition panel extending between said end walls and paralleling said side walls, said walls and panels being substantially coextensive in height, and an inverted box-like cover member on said carrier, said cover member being defined by a top panel having hingedly attached thereto depending side and end walls, the side and end walls of said cover member being telescopically received by said carrier, means coaxing with the end walls of said cover member urging the same outwardly toward a coplanar relation with said top panel, said means including tabs on the side walls of said cover member attached to adjacent end walls to position the side and end walls of said cover member in convergent relation with respect to one another, said carrier partition panel being provided with slots adjacent opposite ends thereof extending downwardly from the upper extremity of the panel and defining mutually intumed hook-like cover locking lugs, said lugs having inwardly and downwardly convergent upper edges, the end walls of said cover member being provided with locking apertures, said means urging the end walls of said cover member into locking engagement with said lugs.

7. An article carrier unit comprising an open top paperboard carrier having opposed pairs of side and end walls, an upright longitudinal partition panel extending between said end walls and paralleling said side walls, and an inverted rectangular box-like cover member having a top panel and depending side walls interconnected by a depending end wall, which cover member is telescopically received in the open top of said carrier, said carrier partition panel being provided with a slot adjacent an end thereof extending downwardly from the upper extremity of the panel and defining an intumed cover locking lug, said cover member prior to its telescopic reception within the carrier being collapsed in a substantially flat condition with its side walls normally assuming an inwardly folded position relative to the top panel and its end wall normally assuming an outwardly flattened position relative to the top panel, whereby upon erection of said side walls and said end wall relative to the top panel prior to application of the cover member to the carrier the end wall of the cover member will be biased outwardly of said top panel under the resiliency of the material by reason of the tendency of the end wall to return to its initial position, said cover member end wall being provided with an aperture in interlocked engagement with the lug on the partition panel.

8. An article carrier unit comprising an open top paperboard carrier having opposed pairs of side and end walls, an upright longitudinal partition panel extending between said end walls and paralleling said side walls, and an inverted rectangular box-like cover member telescopically received in the open top of said carrier, said carrier partition panel being provided with slots adjacent opposite ends thereof extending downwardly from the upper extremity of the panel and defining mutually intumed cover locking lugs, said cover member having a

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top panel and connected end and side walls depending therefrom, said cover member prior to its telescopic reception within the carrier being collapsed in a substantially flat condition with its side walls normally assuming an inwardly folded position relative to the top panel and its end walls normally assuming an outwardly flattened position relative to the top panel, whereby upon erection of said side and end walls relative to the top panel prior to application of the cover member to the carrier the end walls of the cover member will be biased outwardly away from each other under the resiliency of the material by reason of the tendency of the end walls to return to their initial position, said cover member end walls being provided with apertures in interlocked engagement with the lugs on the partition panel.

9. An article carrier unit in accordance with claim 8 in which said partition panel has a hand hole formed therein adjacent the upper extremity thereof and said cover member top panel is provided with a hand hole in general alignment with said partition panel hand hole.

10. An article carrier unit comprising an open top paperboard carrier having opposed pairs of side and end walls, an upright longitudinal partition panel extending between said end walls and paralleling said side walls, and an inverted rectangular box-like cover member telescopically received in the open top of said carrier, said carrier partition panel being provided with slots adjacent opposite ends thereof extending downwardly from the upper extremity of the panel and defining mutually intumed cover locking lugs, said cover member having a top panel and connected end and side walls depending therefrom, said cover member prior to its telescopic reception within the carrier being collapsed in a substantially flat condition with its side walls normally assuming an inwardly folded position relative to the top panel and its end walls normally assuming an outwardly flattened position relative to the top panel, said end walls having portions near the outer margins thereof folded inwardly along outwardly convergent creases when said cover member is collapsed in its substantially flat condition, whereby upon erection of said side and end walls relative to the top panel prior to application of the cover member to the carrier the end walls of the cover member will be biased outwardly away from each other under the resiliency of the material by reason of the tendency of the end walls to return to their initial position, said cover member end walls being provided with apertures in interlocked engagement with the lugs on the partition panel.

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